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ABSTRACT

Teaching medical English presupposes knowledge about its vocabulary composition. the role of Latin (and also Greek) elements in the vocabulary can be shown through statistical methods. English medical vocabulary appears to contain two kinds of Latin vocabulary elements: words of Latin origin in the general vocabulary of English and words and terms of multilingual usage. The first group is usually successfully taught in English and Latin courses given to medical students. The other group could be included in the course of English to improve text comprehension. (Author/VWL)

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THE LATIN COMPONENT IN ENGLISH MEDICAL TEXTS AND SOME OF THE POSSIBILITIES IT OFFERS FOR INTERDISCIPLINARY INTEGRATED TEACHING

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Teaching medical English presupposes knowledge about its vocabulary composition. The role of Latin (and also of Greek) elements in the vocabulary can be shown though statistical methods. English medical vocabulary appears to contain two kinds of Latin vocabulary elements: words of Latin origin in the general vocabulary of English and words and terms of multilingual usage. The first group is usually successfully taught in the courses of English and Latin given to medical students. The other group could be included in the course of English to improve text comprehension in many languages.

Keywords: Latin elements in medical vocabulary, integrated teaching.

Integrated teaching allows to use the skills and knowledge acquired in the class of one discipline in learning the material and acquiring the skills of some other discipline. It saves time devoted to the studying process. It also works for the development of the flexibility of the learner's mental processes and widens the framework in which the processes take place.

Therefore, it can be considered reasonable to look for integrated ways of teaching and learning in situations when the major disciplines are taught in one language, and two more languages are taught as minor disciplines. An occasion of this kind was offered by the curriculum of the Medical Faculty of Tartu State University in the last years of the seventies and the first years of the eighties. According to the curriculum junior medical students had to take their major courses either in Estonian or in Russian. They were also requested to take courses in Latin and English. The course of Latin was designed for beginners and aimed at providing the Latin doctors need. The course of English was designed for advanced learners and aimed at teaching medical English. Knowing that there is a considerable Latin component in medical English, this study was aimed at finding out how much of the vocabulary of English and Estonian medical texts could be traced back to their Latin origin, what kind of words overlapped and could be used in

integrated ways. The etymology of English words was taken from a dictionary (H.W. Fowler and F.G. Fowler(eds) 1964). The vocabulary was then compared with the vocabulary of the only Latin textbook then available for teaching medical Latin to Estonian learners (Gross, et al. 1975). As English is no longer taught to medical students at Tartu University, the study can now serve only as an example of how quantitative methods can be applied in the assessment of overlapping components in the study materials of disciplines that can be taught using integrative approach.

It is generally known that analysis of the language, or more specifically, the special language to be taught to students appears an important factor in the optimization of the teaching process. To promote integrated studies, it is thought desirable to establish whether all the aspects of language learning as well as the building of the necessary vocabulary in the students' mother tongue are sufficiently reflected in the syllabi and teaching material of the other languages taught.

So the aim of this study was to examine the teaching of these vocabularies to medical students for their courses of Latin, English and of medical subjects. Another aim of the study was to establish how much taking the Latin course could contribute to the comprehension of English medical texts. Only notional words were studied as in comparison with auxiliary words they are presumed to possess a stronger capacity for prognosticating the meaning.

Analysis of medical texts shows that they are characterised by certain specific features of the vocabulary of notional words, which distinguish medical texts from texts of other kinds. So, according to the statistical studies referred to in L. Hoffmann (1976: 287) book, 84 % of the vocabulary of English medical texts is covered by as few as 1178 lexemes. Medical texts contain a large proportion of multilingual vocabulary, i.e. words, some of them being terms, found in several languages in phonetically, grammatically and semantically similar forms. It is characteristic of the medical language that most of its multilingual vocabulary consists of terms of Latin or Greek origin (Faulseit 1975: 75). It is also a well-known fact that the vocabulary of English (especially in academic writing) holds a large component of words of Latin origin which have entered the vocabulary at different stages of the vocabulary development and which are consequently at different levels of assimilation into the English language (Pennanen 1971). This allows us to presume that the Latin component of English medical vocabulary can be divided into two large groups: 1) words that have entered English over French or directly borrowed from Latin (e.g. receive ME, f. OF *receivre, reçoivre* f. L *re(cipere cept- = capere* take) and 2) words, including terms, that are words of multilingual vocabulary (e.g. exudation f Gr. *ex* + L *sudare* -sweat + f or after F, or f L *-tio -tionis* -ion). The words of the first group actually belong to general vocabulary. They usually represent the more official and learned

words of possible synonyms. The words of the other group are often derivatives from Latin stems. Some of these words have adopted suffixes of Greek origin. There is also a small layer of terms of Greek stems.

With the aim of establishing some general tendencies of presentation of these word groups in medical texts, we carried out a statistical study on a very limited sample (n = 10,000; that is 10 random samples of 1000 words each) in English medical texts and the same number of words (n = 10.000 words made up of 5 random samples of 1000 words each in Estonian medical texts + 5 random samples of 1000 words each in Estonian popular-scientific texts on medical topics). The number of words of Latin origin that had entered the English language over French, the number of multilingual terms, and the number of the stems of these words in the textbook of Latin for Estonian medical students (Gross et al. 1975) were counted in both English and Estonian samples of 10,000 words each. The material was processed according to the formulae suggested by J. Tuldava (Tuldava 1969), and the mean value of relative frequency of occurrence (p) the relative error (δp) and the confidence interval were calculated.

The analysis showed that there were more or less equal representations of multilingual words of Latin origin in the English and Estonian texts, but the group of assimilated Latin loans present in the English texts (p = 57.2 %) was not present in the Estonian texts. This means that the knowledge of Latin is of much greater help in comprehending English medical texts than it is in comprehending Estonian medical texts. The stems of this group of notional words of Latin origin in English medical texts were well represented in the textbook of Latin for medical students (p = 43.0 %), while the terms derived from elements of Latin and Greek origin in multilingual usage were represented less. It also became evident that terms in the medical subjects read in Estonian were introduced when the logic of the course required it; no linguistic analysis or systematic linguistic presentation ever took place.

To fill this gap, a systematic presentation of the stems and affixes of Latin and Greek origin was attempted in medical groups learning English at advanced levels. The Latin and Greek components (stems and affixes) frequent in multilingual medical terms were listed and their definitions were given in English. There were also exercises asking students to open up the meanings of terms relying on their knowledge of the meanings of the components or suggesting a term when the definition of the term had been given. The feedback achieved was highly positive. The students said that the course did not only contribute to enhanced text comprehension of English texts but it also improved comprehension of Estonian texts.

The need for a systemic presentation of term-forming elements in medical texts has been noted by the authors of several textbooks of English for medical students (e.g. Jedraszko 1973; Laar 1977; Sosar 1978, just to mention a few). Considering the fact that it is the English vocabulary that is

so much enriched by Latin borrowings, the course of English seems to be the most reasonable framework for teaching Latin (and Greek) elements found in medical terms to students to whom the major medical disciplines are taught in Estonian.

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